

IN THE CLAIMS

Please cancel claims 2 and 5-10 without prejudice, amend claims 1, 3-4, and add claims 11-28 as follows:

1        1. (Currently amended) A transmitter for use in a communication  
2 system, the transmitter comprising a digital input, a coding device  
3 for generating data bits for transmission, and means for  
4 transmitting the data bits during respective frames of a  
5 transmission channel, wherein the coding device comprises a coding  
6 circuit for generating a coded output having a greater number of  
7 bits than the digital input, an interleaving circuit for operating  
8 on the coded output to generate a data block comprising a plurality  
9 of interleaved words, a rate matching circuit for adjusting the  
10 ~~number of bits in a data block, the data block comprising a~~  
11 ~~plurality of interleaved words generated by the action of an~~  
12 ~~interleaving circuit on a coded output generated by the action of a~~  
13 ~~coding circuit on a digital input, the coded output having a~~  
14 ~~greater number of bits than the digital input, the rate matching~~  
15 ~~circuit having means for adjusting the number of bits in the data~~  
16 ~~block using a rate matching pattern to provide data bits for~~  
17 ~~transmission during respective frames of a transmission channel,~~  
18 ~~characterised in that and means are provided for selecting the rate~~

19 matching pattern depending on ~~the characteristics of the coding~~  
20 ~~circuit and of the interleaving circuit~~ a bit deletion/repetition  
21 rate, wherein a bit deletion/repetition pattern is selected to  
22 ensure that the deleted or repeated bits are not required to enable  
23 all bits from the digital input to be reconstructed.

2. (Canceled)

1 3. (Currently amended) A ~~rate matching circuit~~ transmitter as  
2 claimed in claim 1 ~~or 2, characterised in that~~ , wherein the rate  
3 matching pattern for each interleaved word within the data block is  
4 offset with respect to the adjacent interleaved word or words  
5 within the block.

1 4. (Currently amended) A ~~rate matching circuit~~ transmitter as  
2 claimed in ~~any one of claims 1 to 3, characterised in that~~ ,  
3 wherein the rate matching pattern is selected as a function of the  
4 interleaving depth of the interleaving circuit.

Claims 5-10. (Canceled)

1           11.(New) A transmitter as claimed in claim 1, wherein the  
2 coding circuit applies convolutional coding and said means for  
3 selecting is selects said rate matching pattern as a function of the  
4 constraint length of the convolutional code.

1           12.(New) A transmitter as claimed in claim 1, further  
2 comprising additional coding devices, each for coding a respective  
3 digital input, and a multiplexer for combining output data words of  
4 said coding device and said additional coding devices for subsequent  
5 transmission by the means for transmitting on a single transmission  
6 channel.

1           13.(New) A transmitter as claimed in claim 12, wherein outputs  
2 of different of said coding device and said additional coding  
3 devices are selected to have different data rates, the combined data  
4 rate corresponding to the channel capacity of the transmission  
5 channel.

1           14.(New) A transmitter as claimed in claim 1, wherein the rate  
2 matching pattern forms a matrix including change bits that indicate  
3 change of corresponding bits of said interleaved words within said

4 data block, wherein each row of said matrix includes a maximum of  
5 one of said change bits.

1 15.(New) A transmitter as claimed in claim 1, wherein said  
2 coding circuit has one of a fixed code rate and a predetermined  
3 number of rates for a variable data source.

1 16.(New) A transmitter as claimed in claim 1, wherein said  
2 interleaving circuit is not adaptive.

1 17.(New) A transmitter as claimed in claim 1, wherein said  
2 interleaving circuit has a constant bit rate.

1 18.(New) A transmitter as claimed in claim 1, wherein said  
2 coding circuit has one of a fixed code rate and a predetermined  
3 number of rates for a variable data source, and wherein said  
4 interleaving circuit is not adaptive.

1 19.(New) A transmitter as claimed in claim 1, wherein said  
2 rate matching circuit alters a coding rate of said coding circuit.

1           20.(New) A receiver for use in a communication system, the  
2 receiver comprising means for receiving a coded digital signal  
3 comprising a received data block comprising a plurality of  
4 interleaved words, the data block having been processed by a coding  
5 device to adjust the number of bits in the data block according to a  
6 rate matching pattern, the receiver further comprising a data  
7 reconstruction circuit having means for adjusting the number of bits  
8 in the data block to reverse the action of the coding device,  
9 thereby reconstructing the interleaved words, a de-interleaving  
10 circuit having means for generating each of the plurality of  
11 interleaved words, a channel decoder, and means for selecting the  
12 rate matching pattern as a function of a bit deletion/repetition  
13 rate, a bit deletion/repetition pattern having been selected to  
14 ensure that the deleted or repeated bits are not required to enable  
15 all bits from the digital input to be reconstructed.

1           21.(New) A receiver as claimed in claim 20, wherein the rate  
2 matching pattern forms a matrix including change bits that indicate  
3 change of corresponding bits of said interleaved words within said  
4 received data block, wherein each row of said matrix includes a  
5 maximum of one of said change bits.

1        22.(New) A receiver as claimed in claim 20, wherein said  
2 coding device has one of a fixed code rate and a predetermined  
3 number of rates for a variable data source.

1        23.(New) A receiver as claimed in claim 20, wherein said de-  
2 interleaving circuit is not adaptive.

1        24.(New) A receiver as claimed in claim 20, wherein said de-  
2 interleaving circuit has a constant bit rate.

1        25.(New) A receiver as claimed in claim 20, wherein said  
2 coding device has one of a fixed code rate and a predetermined  
3 number of rates for a variable data source, and wherein said de-  
4 interleaving circuit is not adaptive.

1        26.(New) A receiver as claimed in claim 20, wherein a coding  
2 rate of said coding circuit is altered.

1        27.(New) A method of operating a transmitter for use in a  
2 communication system, the method comprising operating on a digital  
3 input to generate a coded output having a greater number of bits  
4 than the digital input, operating on the coded output to generate a

5 data block comprising a plurality of interleaved words and adjusting  
6 the number of bits in the data block using a rate matching pattern  
7 to provide data bits for transmission during respective frames of a  
8 transmission channel, wherein the rate matching pattern is selected  
9 as a function of a bit deletion/repetition rate, a bit  
10 deletion/repetition pattern is selected to ensure that the deleted  
11 or repeated bits are not required to enable all bits from the  
12 digital input to be reconstructed.

1 28.(New) A method of operating a receiver for use in a  
2 communication system, the method comprising receiving a coded  
3 digital signal comprising a received data block comprising a  
4 plurality of interleaved words, the data block having been processed  
5 to adjust the number of bits in the data block, adjusting the number  
6 of bits in the data block according to a rate matching pattern (44),  
7 thereby reconstructing the interleaved words, and de-interleaving  
8 and decoding the words to generate an output digital signal, wherein  
9 the rate matching pattern is selected as a function of a bit  
10 deletion/repetition rate, a bit deletion/repetition pattern having  
11 been selected to ensure that the deleted or repeated bits are not  
12 required to enable all bits from the digital input to be  
13 reconstructed.